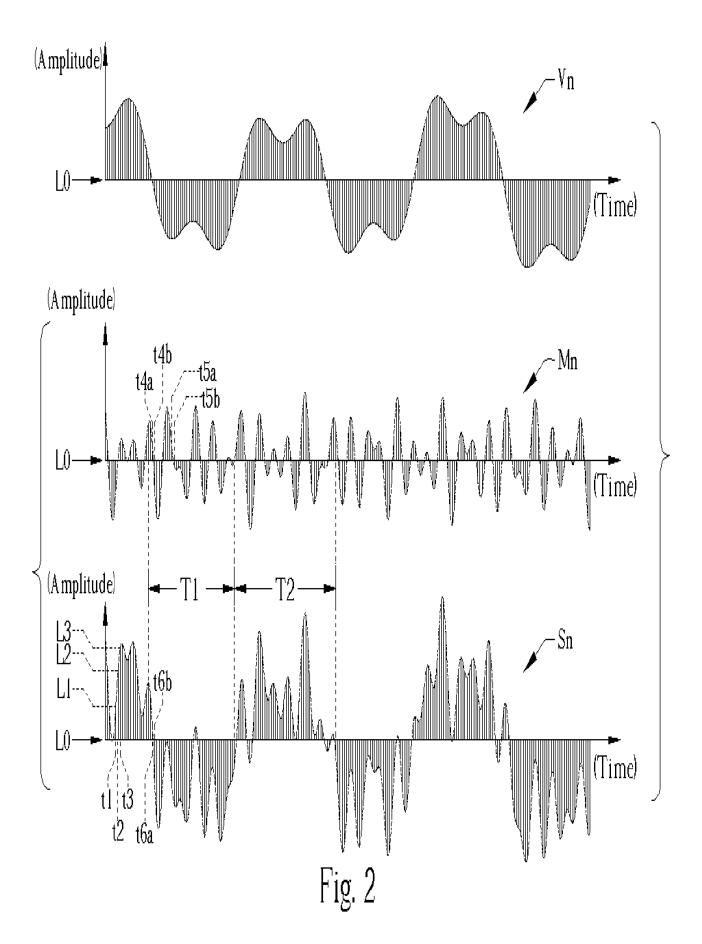
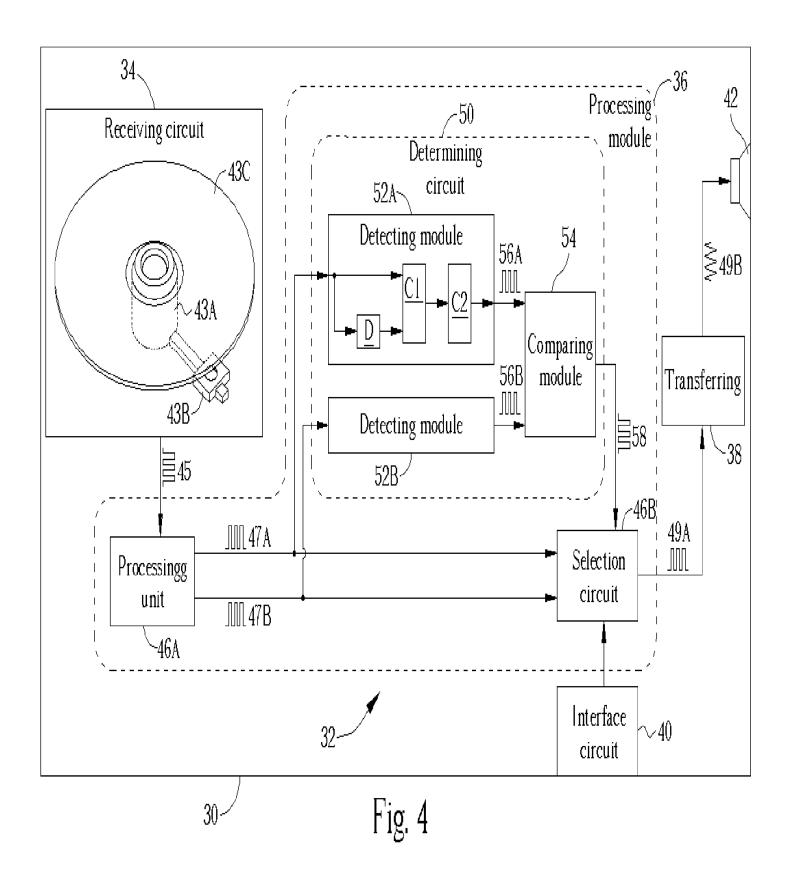


Fig. 1 Prior art



```
LnZCR = 0;
            Pre Sample = Ln(1);
            for (I=2; I<SampleLength; I++) {
A1 Part
              if (Pre Sample*Ln(I)<0) LnZCR++;
              Pre Sample=Ln(I);
            RnZCR = 0;
            Pre Sample = Rn(1);
            for (I=2; I \leq Sample Length; I \leftrightarrow ) {
A2 Part
              if (Pre Sample*Rn(I)<0) RnZCR++;
              Pre Sample=Rn(I);
            if (LnZCR > (RnZCR + threshold))
            =>[ vocal in Rn ]
            else if (RnZCR > (LnZCR + threshold))
A3 Part
            =>[vocal in Ln]
            else [vocal in both Rn and Ln] or [vocal not in either
            Rn and Ln]
```

Fig. 3



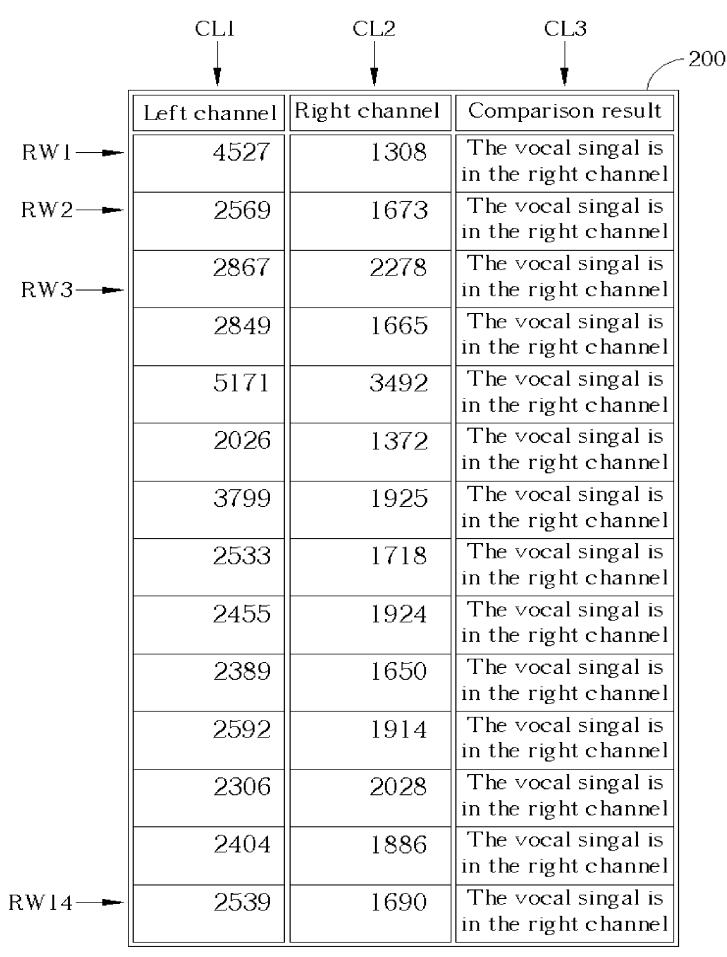


Fig. 5